

ABSTRACT OF THE DISCLOSURE**HIGH-LEVEL LANGUAGE, ARCHITECTURE-
INDEPENDENT PROBE PROGRAM**

A high-level language, architecture-independent probe program compiler is disclosed. A base program is executable by one or processors, and has one or more breakpoints. A probe program is associated with each breakpoint and is also indirectly executable by the one or more processors. The probe program is independent of the architecture of the processors, and is generated from source code written in a high-level language. The probe program associated with each breakpoint is executed when the breakpoint is reached during execution of the base program. The compiler may employ an abstract syntax tree to switch between an address space of the probe program and an address space of the base program, by traversing the tree. Some of the nodes of the tree may more simply represent address space-specific objects of the base program. The probe program may be able to pass messages by manipulating the state of the base program.